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A
HISTORY

OF THE

Medicinal Springs

AT SARATOGA AND BALLSTOWN

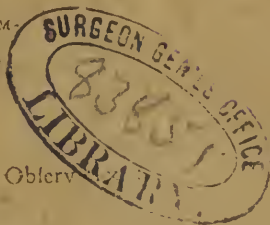
BEING A BRIEF ACCOUNT OF THE SITUATION,
COMPOSITION, OPERATION, AND EFFECTS, OF
THOSE CELEBRATED WATERS;—WITH A
CATALOGUE OF ALL THE DISEASES, IN
WHICH THEY ARE BENEFICIAL, OR
INJURIOUS; AND DIRECTIONS HOW
TO USE OR APPLY THEM IN EACH;
ATTENDED WITH REMARKS ON
THE PROPER SEASONS TO
VISIT THEM, THE ACCOM-
MODATIONS, CUSTOMS,
EXPENSE OF
BOARD,
&c.

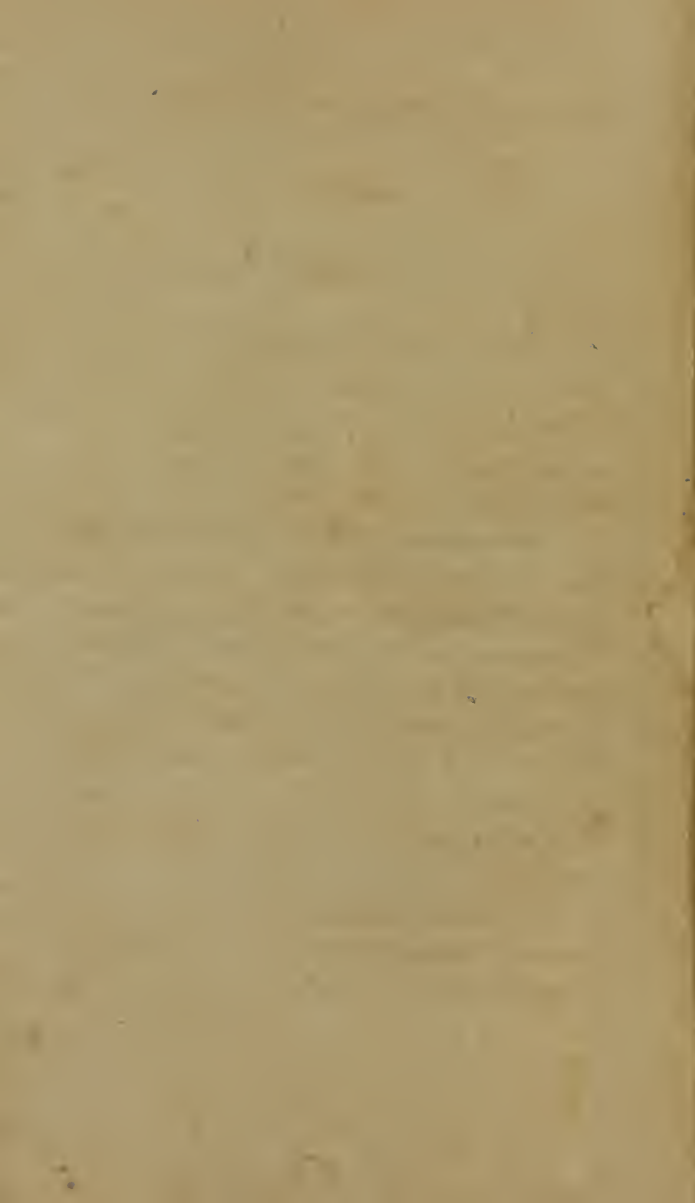
Taken from actual Experiment and Observ

By TIMOTHY HOWE, PHILOM.

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PREFACE.

IT is thought those who have long deplored the want of a publication upon the nature and operation of the Saratoga and Ballstown Springs, will with avidity embrace this little Pamphlet, and afford it all the candor and indulgence its novelty requires.

The writer is aware of the imperfections indispensable in a first attempt to delineate the real virtues of those waters without ascribing to them more than is due ; prejudice and falshood must be confronted, and opinions long sanctioned by general assent discarded.

There are perhaps few absurdities more generally received than the idea of the utility of excessive purging ; an opinion, when applied to these waters, highly injurious and dangerous, for reasons pointed out in this treatise.

The writer has been compelled to express himself more unfavorably of the inhabitants of Saratoga than he could have wished ; such remarks however he does

not mean to apply to the inhabitants of Ballstown, as their situation is more healthful, their accommodations more convenient, and their manners more refined.

As this work is designed for the use of the populace, all medical or intricate terms are avoided, and a catalogue of diseases is arranged in alphabetical order, with directions how to use the waters in each, and information how they may be expected to operate.

The essay is concluded with a letter written by a physician to a young gentleman, containing all the necessary information concerning the situation, accommodations, customs of the inhabitants, &c.

A History, &c.

IT is obvious that waters circulated or strained through the earth, as those are which on breaking out upon its surface are denominated Springs, wash off and carry with them many particles of the soil they traverse ; by which means some are impregnated with clay, others with lime-stone, salt, iron-ore and various other substances ; by which they become more or less unfit for the common purposes of life ; and are either useful or mischievous, according to the nature of the substances with which they are combined. And though in this country we know of no springs of a poisonous nature, history informs us of many, in other parts of the world ; especially in the torrid zone ; where poisonous minerals, as well as animals and vegetables, are more common, and inveterate ; as the red-springs of Ethiopia, which abound with quick silver, sulphur and rats-bane ; insomuch that travellers in foreign countries have found their account in trying the qualities of the water they meant to use, by weight, and various other experiments. But though in this country, as was observed, we have no springs of a poisonous nature, we have many that are extolled for their medicinal virtues. There is scarce a state,

or county, that cannot produce many instances of recovery from disease and lameness, in confirmation of the utility of American medicinal waters ; a testimony at once the most conclusive and pleasing to the friends of benevolence and humanity ; although they still regret, that men of science do not more effectually exert themselves to ascertain their real nature and effects, and point out to the world the cases in which they are beneficial or injurious ; a remissness, which has undoubtedly contributed to the destruction of many of our unfortunate fellow creatures. To obviate in some measure this defect, the writer will endeavor to explain, in a brief and concise way, the nature of the several ingredients in those celebrated waters known by the names of the *Saratoga* and *Ballstown Springs*. They are situate on the west side of Hudson River, in the state of New-York, about thirty-four miles above Albany, in the vicinity of the towns from which they derive their names. They are found in two clusleis, about ten miles distant from each other. Those at Saratoga, to which my observations will be more particularly confined, are about seven or eight in number, distinguished by the names of the *Congress-Spring*, the *Flat-Rock-Spring*, the *High-Rock-Spring*, the *House-Spring*, and others of less note, occupying the space of about 250 rods, nearly in a direct line. But before we enter upon a discussion of the materials with which this water is impregnated, it is necessary to observe, that these waters are not of that pure homogeneous quality of rain water, or even of common spring water, but similar to the adjacent springs and rivulets, which are very impure and unwholesome : And if we give credit to the reasonings of Hypocrates and Santtorus, we must consider them as a principal

cause of the diseases which infest that place. Their impure qualities are ascertained by weight; the difficulty with which they lather with soap, and the incrustations of the vessels in which they are boiled, confirm every person of the least discernment, in the fact; and it is highly probable that the bilious, hysterical, and hypocondriac diseases, with many others, in a great measure peculiar to that place, arise principally from that source: The gross particles of earthy matter they contain, obstructing the capillaries and glands, and so checking the perspiration, till those excrements which usually pass off insensibly through the pores of the skin, become malignant, and produce these deleterious effects; especially in those seasons of the year when the air is most infected with the effluvia that rise from the neighboring mill ponds. In these seasons the inhabitants universally become pale and sickly; the moral faculty is likewise deeply affected; hence the general indolence and intemperance which characterises the place. And indeed, if Hypocrates was able to determine, not only the diseases peculiar to the different countries, but the tempers and dispositions of the inhabitants, by the different qualities of the waters with which nature had furnished them, it may not be hard to conceive that the moral faculty of those who live near the Saratoga Springs is not the most perfect. There is however little water attainable of a perfect elementary kind: Rain water, which approaches most nearly to a homogeneous fluid, contains a considerable quantity of nitrous salts, which serve a valuable purpose in enriching the earth; but these salts are too subtile and diffusible to obstruct any of the secretory glands, or to retard the facility of perspiration; hence it is

the most wholesome for drink or diet. River water is a mixture of rain and spring water, and partakes of the nature of both. Spring water is least fit for use, on account of the heterogeneous matter it contains. There are, however, in the United States, a greater number of springs which afford water of a pure elementary kind, than are known in other countries; which gives us a great superiority in the means of preserving health, if we fall below them in those of restoring it when lost, for want of as profuse a distribution of medicinal springs as other countries enjoy. But to return to the springs of Saratoga, we find them highly impregnated with iron ore, common salt and insipid earth. The iron discovered in these waters is the same chalybeate which composes the chalybeate springs of Scarborough and Hampstead, in England; it is a metal of great power and efficacy, and so popular in common practice that it is the principal in not less than twenty officinal drugs, which pass under the name of *preparations of steel*; and perhaps no medicine is more justly approved in cases where the vessels have become languid, and the blood cold and watery through long indisposition. It is likewise of good service in removing obstructions from the kidneys, uterus, &c. and hence its high reputation in the disease commonly called the green-sickness. It likewise warms and invigorates the stomach, and obviates those complaints which arise from indigestion, as the epilepsy, &c. There are, however, many cases in which it is inadmissible; and in all full, dense habits, it is found highly injurious, by inducing fevers, vertiges, apoplexies, and all the alarming symptoms to which plethora is disposed. In such cases, therefore, it is not to be

tampered with, with impunity; it is not one of those common-place drugs which may be substituted to cure any thing or nothing—a circumstance that ought to be fully known by all who have recourse to it without medical advice. The salt contained in these waters is the same of that produced from the ocean, or from the salt rocks of Poland, and probably the same of the salt mountain in Louisiana; it is found of good service in stopping the operation of pukes, and turning their course downward—the only case in which it is used in the practice of medicine, except in the composition of clysters, although it contains all the purgative powers of the common cathartic salts, and is capable of dissolving iron; but its great disposition to create thirst excludes it from common use, till that quality is obviated by a chemical process which separates a quantity of acid spirit and leaves the remainder in the state in which we find the purging salts of the shops, or those procured from the springs in Dulwich and Epsom, distinguished by the name of Epsom salts. The operation of these salts is well known to be very mild and efficacious, nor attended with those gripings occasioned by other drugs of that class. Earth is the next ingredient which merits attention in these waters; it is of two kinds, the first of an absorbent nature from the limestone in the adjacent hill; the other from a clayey strata, is incapable of being dissolved in acids and entirely unfit for any medicinal purpose. The other may be of use in destroying acidities and removing such disorders as arise from that source, many of which appear in children and people of weakly constitutions whose food is chiefly of a vegetable kind. These various substances, being mixed and

blended together and highly impregnated with fixed air, constitute all the virtues of material consequence in those celebrated waters.

We may therefore, from what has been said of their several natures, be able to judge of their effects when united. And, in addition to the advantage of reasoning upon the important subject, experience may and ought to be consulted, for, in all matters imperfectly understood, that must be allowed the last resort of human research; for what has invariably taken place in many cases and failed in none, is probably what will invariably take place hereafter. And happily in this case we may affirm that innumerable trials have been made and the result has proved their utility in many if not in most diseases when judiciously exhibited or applied, especially in those attended with retrograde action of the vessels, as are most of the hysterical complaints and many species of madness or delirium, and generally all diseases attended with costiveness. In these disorders its great heat and purgative qualities powerfully contribute to restore the stomach and bowels to their proper situation and office; but such persons, while they are under a course of the waters, especially if they be of a full and dense habit, should occasionally have recourse to blood-letting, otherwise the metallic ingredients will be likely to raise the blood too high, and by a preternatural distention of the vessels occasion a very injurious pressure on the brain. It is likewise serviceable in cleansing the first passages of the body from any foulness with which they may be loaded. In such cases they should be drank freely for a few days and no more, lest the bowels, being in a relaxed state and divested of a great part of the glutinous

matter which lines their cavities, too much of the saline and earthy particles should be received into the system and form obstructions in the pores and glands of the body, giving rise to all the deleterious effects mentioned in page 7th of this treatise. For want of this salutary caution a capital error is often committed, so that in many instances where a moderate use of the waters might be serviceable, by an excessive use and loading the system with foreign extraneous matter their benefits have not only been lost but the common and indispensable functions of life have been retarded to the great detriment of the economy of the system. In many cases where their first operations are good and salutary, after a number of repetitions they have become mischievous in producing obstructions and inducing languor and debility with all the train of diseases into which they form; a fact fully known to the inhabitants, although it appears entirely unattended to by others. Those who live near them are so cautious in this particular, that they never use them for any medicinal purpose, and rarely use them at all, excepting a common substitution of them instead of yeast to raise bread. The Indians, who first discovered them, were never known to tarry by them but a few days at a time, although they travelled great distances to visit them annually, in the spring of the year; yet now there are many imprudent enough to continue the use of the waters many weeks and perhaps months, who find no benefit from a first trial. Indeed it is a matter of real surprise, that under all the ignorance and presumption with which they have been administered, they have obtained any reputation but that of the most baneful agents. For after the Europeans became acquainted with them, a

few families settled down at their side to accommodate such as might choose to visit them, and though no person pretended to a knowledge of their nature and composition, very extravagant accounts of their miraculous cures, attended with others entirely unfounded, were circulated through the country; and there are inhabitants now living by them who have ignorance enough to assert that formerly they ebbed and flowed with the changes of the moon. The curious phenomena of fixed air has likewise given rise to much wonder and surprise to those ignorant of its nature; and the observations of the wise and learned have been lost, either through popular clamor, or neglect and inattention; so that real information on the subject has been confined to a very few heads. Even the operation of bathing in these waters is by no means understood, although in daily practice; so that while the friends of humanity, with emotions of joy and gratitude to the Supreme Dispenser of good, contemplate the numerous instances of its utility to mankind, they cannot forbear dropping a pathetic tear over the tombs of those who have fallen sacrifices to that practice.

The operation of the cold bath is to be explained on mechanical principles. The specific gravity of these waters renders them more or less beneficial, by pressing the whole surface of the body, thereby sustaining and invigorating the system: The muscles contract with more energy, the blood is pressed forward with greater velocity, the obstructed pores are flung open, and the system is relieved from those noxious humors which are apt to collect near the surface of diseased bodies. But should there happen to be any local disease, or internal weakness, by which any particular

part of the vibura is rendered incapable of supporting the energy of the contracting solids, a discharge of extraneous humors will take place on that part, which might otherwise perhaps have been prevented, and thus the unfortunate patient is flung headlong into danger, perhaps death ; and from this source has arisen its great fatality in consumptive disorders. In such cases it is likewise injurious to very fat, corpulent people ; the vessels finding no room to contract, are distended, and exhausted without the least service to the patient. On this hypothesis it is easy to account for its great usefulness in the dropsy ; this disease is not to be conquered by the absorption of any of the ingredients in these waters into the system, but by enabling the body to sling off the cold and noxious fluids, which through long debility have been suffered to collect in its cavities. The gout likewise has been more successfully treated by bathing in these waters than by any other treatment whatever ; for, though their greatest utility is derived from their gravity, yet their metallic, saline and ethereal particles, are valuable auxiliaries in stimulating the minute vessels near the surface of the body, which by their connection with the more immediate organs of life, assist in keeping up the energy first excited by mechanical powers and increasing the perspiration ; so that there are scarce any chronic diseases in which this practice is not found beneficial. The few exceptions which do arise are evidently from ulcerations, or other local affections, which render particular parts incapable of supporting the general energy of the system. The warm bath is likewise in high repute, and that very justly, for in many cases it excels the cold bath, especially with children and those adults who are of a

nervous constitution : It opens all the secretory orifices on the surface of the body, clears the cutaneous ducts, and enables the vessels to fling off such extraneous matter as obstructs and retards their operation ; hence its surprising efficacy in those cases of languor which proceed from a constitution broken with excessive labor or debauchery, as chronic rheumatism, contracted limbs, partial palsies, and many other denominations of disease and lameness. But another form of applying the water, and which is in common use, is by no means equally salutary, except in a very few cases ; I mean the operation of showering : For here, the shock received from falling water is highly debilitating, and is admissible only in diseases which principally affect the head, though in such it is often found a powerful and efficacious remedy, by forcibly clearing the obstructions in that department, and driving the blood to the lower extremities. It ought however to be used with more precaution than would be exercised by a common applicant.

Other dangers from drinking these waters arise from the great quantity of insipid earth contained in them ; for the stomach and bowels may become encrusted over with it, as they are sometimes lined with a gross and indigestible matter of a similar kind, concreted with the mucous of those passages into an indissoluble mass, especially as it is always found on the dissipation of the fixed air to settle with the metallic particles and form incrustations on the bottom of the vessels which contain these waters ; and around the springs they have formed masses similar to large rocks. However ludicrous it may appear to some, in my opinion it affords a strong hint to the wise, not to make a wanton use of these waters, nor in any case

to follow drinking them for a great space of time ; especially as there appears not a single case where they have been drunken for a long space of time without producing injurious effects. To obviate which evil, it is thought the following directions, if attended to, will be of service to such as are laboring under the diseases here enumerated. For brevity and convenience they are arranged in alphabetical order, as follows, viz.

AGUE, OR INTERMITTENT FEVER.

The frequency with which this disease occurs at the Saratoga Springs has obtained it a place in this catalogue, rather than a belief that the waters of those springs have much efficacy in removing the complaint. This disease commences with a sense of cold, and an ardent desire of a warm situation, attended with pains in the back and head, which are succeeded by a burning heat and fever, that afterwards terminates in profuse sweats ; the intellects are impaired, the mind becomes fickle, and the spirits are very much depressed.

TREATMENT.—There are many cases in which the waters are said to have been serviceable ; although it appears most probable that the effects ascribed to them have been derived from other sources ; yet the warm bath may do much towards a cure, if applied in the intermission, and aided with a free use of wine, or other medicines of a stimulant kind.

APOPLEXY.

In this disease the warm bath promises great utility if properly attended to ; in general, a small proportion of blood should be drawn, then opium, castor and

valefian should be administered, attended with a light, nourishing diet, and moderate exercise on horse-back. Enough water may be drank to produce one evacuation at first, then no more.

APPETITE—LOSS OF.

Drink freely of the water of Congress-spring, or of those at Ballstown, and occasionally apply the cold bath ; a mode of treatment that will rarely fail of the desired effect.

ASTHMA.

If age or weakness do not forbid, blood should be drawn ; after which the waters may be drank freely, and the warm bath used occasionally, with good success. If the warm bath is not used, a blister should be drawn upon the back.

CHOLERA-MORBUS.

Great steels may be put here upon the warm bath for a first application, but after the disease has abated the strength is better restored by the cold bath. The water may be drank freely through the whole disease if the stomach is able to bear it.

CONSUMPTION—NERVOUS.

As this is a general disease, without any local affection of the internal viscera, great benefit may be expected from the cold bath regularly applied and a moderate use of the water internally, attended with a nourishing diet and a free use of wine.

COLIC—BILIOUS.

The warm bath. Procure one evacuation by the water ; then take bitters in wine.

COLIC—HYSTERIC.

Drink no water; apply the warm bath, and give opium and castor in substance; the stomach being first cleansed by drinking common water about blood warm.

CONSUMPTION OF THE LIVER OR LUNGS.

Every method of using the water in these complaints has been found highly injurious and often fatal, as may be judged from what was said of their nature and operation.

CONVULSIONS.

The warm bath should be applied freely, with musk, opium or amber, if the vessels are full of blood; if otherwise, forbear. In some cases the water may be drank, but in general wine is to be chosen.

DEAFNESS.

If the patient be of a good constitution, showering, may be serviceable; in the mean while sweet oil should be dropped into the ears, they being kept stopped with cotton wool.

DIARRHŒA.

In this disease the drinking of the water is generally found a very efficacious remedy.

DROPSY.

Apply often the cold bath and drink freely of the water; or if extreme weakness forbids the cold, substitute the warm bath in its stead. This remedy has often succeeded, after all the celebrated drugs of the shop have failed.

EPILEPSY.

In this disease the water may be drank and the cold bath applied with good success. The diet should be light and nutritious, and the exercise free and agreeable.

EYES INFLAMED.

Apply the water cold.

FLUOR ALBUS.

The cold bath is excellent.

GOUT.

The warm bath may be expected to perform excellent service, if attended with wine and a nourishing diet. The affected part should be rubbed with a flesh brush.

HYPOCHONDRIASIS AND HYSTERIA.

Drinking of the waters has generally proved highly beneficial in these diseases. Showering should likewise be applied if the patient is of a sanguine habit; but if that is not the case, the cold bath.

JAUNDICE.

Service may be expected from bathing in, and drinking of the waters, for a few days.

MADNESS.

The patient should be showered often, and drink of the waters freely. This practice is often successful.

PALSY.

The warm bath is here to be principally relied on.

The patient should take opium, musk, or volatile salts in the mean time, and exercise freely.

RHEUMATISM.

The warm bath is principally to be applied, and in most cases it is highly beneficial.

RICKETS.

The cold bath is useful in general.

SCALD-HEAD.

Drink the water and apply it cold to the head.

STONE AND GRAVEL.

The cold bath will greatly assist the common medicines, and many cases are related wherein the waters drunken are highly extolled. If we consider how much fixed air it contains, and that it is likewise impregnated with absorbent earth, we may easily give credit to such reports.

FINIS.

A LETTER,

Written by Doct. H. to his friend Mr. J. S—— ;

GIVING A PARTICULAR ACCOUNT OF THE
MEDICINAL SPRINGS, AT BALLSTOWN AND
SARATOGA, IN THE STATE OF NEW-YORK.



Dear Sir,

IN obedience to your will, with which it is always my pleasure to comply, I give you this historical description of those far famed waters, near which I reside. They issue from a hill which abounds in iron ore, clay and lime-stone, with all of which they are highly impregnated, as well as with neutral salts ; yet they are very clear, and sparkle in the glass like good champaign, owing to their being highly charged with fixed air, which they discover by changing colors, raising bread, &c. as well as by the sensation they excite in drinking. On this account they prove immediately fatal to fish, frogs, &c. and will extinguish the flame of a candle if held near its surface. But it is needless for me to attempt to enumerate all the appearances or effects of this acid, (for it is really an acid, composed of the principle of

common air and charcoal.) The whole ingredients form a composition not in general disagreeable to people or animals; horses especially drink it with avidity, and it is said to be an infallible remedy in that disorder denominated the *heaves*. They sometimes on a first drinking produce a slight sickness at the stomach, and sometimes they slightly affect the head; but as soon as they begin to pass off by the kidneys, as they do very freely, nothing more is felt of either. The spirit contained in that kind of salts with which these waters are impregnated creates a moderate thirst, and joins the fixed air in facilitating their operation, which is to pass off by the kidneys and the pores of the skin, as well as by stool. Those at Saratoga are rather the most powerful, but those of Ballstown are most pleasantly situated and afford much the best accommodations; many circumstances conspiring to render this situation elegant and agreeable. They are situated near the bank of a small, though beautiful river, and surrounded by several large and commodious buildings. The place appears flourishing in all respects, and no pains are wanting to render the situation pleasant and agreeable to gentlemen and ladies of taste and fortune.* Those of course resort here from all parts of this country, and many from Europe, to spend the summer season. During which period they make frequent tours to Saratoga springs, and from thence to Lake George, about thirty-two miles from Ballstown and twenty-two from Saratoga; at which place there are now built, and building,

* *There was a very magnificent building erected here the last summer, which for size or expense exceeds any thing of the kind in the country.*

several convenient houses for their reception on an eminence of ground at the south end of the lake.— Here they regale themselves, and after taking an airing upon the lake, in pleasure boats, return by the same route. The situation of Ballstown springs is also more favorable to health than that of Saratoga, having less stagnant water and mephitic air ; on which account these springs are always to be preferred to those of Saratoga. From a contrast of the inhabitants other motives arise to confirm the justice of this remark. Those of the former place are civil and agreeable, but those of the latter quite the reverse. Little will be found at Saratoga to amuse and divert the delicate and refined part of society ; although such as are not offended by drunkenness and profanity, with many other species of vice and vulgarity, may be well accommodated here ; there being two large and convenient houses for the reception of valetudinarians, besides others of less note. It would be unjust however to assert that there are no inhabitants at these springs who are decent and respectable ; it is enough to say they are too scarce, and probably will remain so while the soil continues in the hands of its present landlord, and the climate in its present unhealthful state. The only difference in the quality of the several springs is, that some are more, and others less impregnated with the general properties of all. The Congress-spring at Saratoga is the most powerful, or rather it contains most neutral salt and least insipid earth. The Flat-Rock-spring contains most fixed air and insipid earth. There is very little difference between the other springs in common use, either at Saratoga or Ballstown. There is likewise little odds in the expense of boarding at either place ; genteel board is generally about four

or five dollars per week, and common board two dollars per week * The board is lowest before the weather becomes very hot, as in May and June — The country is likewise most healthful at this time, and the water most beneficial. But after this season is past I would by no means advise a friend to visit, for any length of time, the springs at Saratoga, on account of the sickliness of that season (as July, August and September) after which the climate is less perilous and the board again lower.

But sir, hoping I have satisfied your particular request, and given you the information most necessary for one who determines to visit them, and is possessed of other sources of information as to their nature, operation, &c. I beg leave to subscribe,

Your most obedient, humble servant,

G. H.

January 16, 1804.

* At different houses board is afforded at any price from $1\frac{1}{2}$ to 5 or 6 dollars per week.

THE END.

Med. Hist.

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